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To: Micheal J. Cherskov (33,664)	**From:** Lisa V. Cook
Application/Control Number: 09/368,989	**Art Unit:** 1641
Fax No.: 312-621-0088	**Phone No.:** 703-308-4242
Voice No.: 312-621-1330	**Return Fax No.:** 703-308-4242
Re: Abstracts to Godding and Skoog	**CC:**

☐ **Urgent** ☐ **For Review** ☐ **For Comment** ☐ **For Reply** ☒ **Per Your Request**

Comments:

Lisa Cook
6/24/03

Number of pages 3 including this page

3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2000 ACS
AN 1980:424158 CAPLUS
DN 93:24158
TI Characterization of human lymphocyte surface receptors for mitogenic and non-mitogenic substances
AU Skoog, V. T.; Nilsson, S. F.; Weber, T. H.
CS Dep. Surg., Univ. Hosp., Uppsala, Swed.
SO Scand. J. Immunol. (1980), 11(4), 369-76
CODEN: SJIMAX; ISSN: 0300-9475
DT Journal
LA English
CC 15-2 (Immunochemistry)
AB To compare the receptor patterns for mitogenic and nonmitogenic substances, surface glycoproteins of human lymphocytes were labeled with the lactoperoxidase-catalyzed iodination technique and with a galactose oxidase-tritiated Na borohydride technique. Labeled cells were detergent-solubilized, and the lysates were allowed to react with insolubilized purified mitogenic lectins, phytohemagglutinin, leucoagglutinin, and an insolubilized nonmitogenic lectin, oxidized leucoagglutinin. Lectin-reactive proteins were eluted with Na dodecyl sulfate (SDS) buffer. Cell membrane components reactive with antilymphocyte globulin (ALG) were retrieved by indirect immunopptn. with protein-A-bearing staphylococcus Cowan I strain (SaCI). Lectin- and ALG-reactive proteins were analyzed by SDS polyacrylamide gel electrophoresis. Iodinated glycoproteins regularly showed 4 major components with mol. **wts**. of 120,000, 70,000, 60,000 and 43,000 **daltons**, resp., on 7% gels. An addnl. broad peak in the mol. **wt**. range **20,000**-35,000 **daltons** was found on 10% gels. Tritiated glycoproteins also showed 4 major components with mol. **wt**. 120,000, 70,000, 60,000 and 42,000, resp., which reacted with lectin and ALG. In addn., ALG reacted with some glycoproteins with mol. **wt**. between 150,000 and 230,000 **daltons**. On 10% gels addnl. lectin- and ALG-binding glycoproteins with mol. **wt**. around **30,000 daltons** were found. The similarity in structures bound by mitogenic and nonmitogenic substances indicates that lymphocyte activation may depend on some property conferred by the mitogen.
ST lymphocyte receptor mitogen **Ig**
IT Receptors
RL: PROC (Process)
(for mitogens, of lymphocytes, characterization of)
IT Glycoproteins
RL: BIOL (Biological study)
(of lymphocyte cell membrane, as receptors for mitogens)
IT Cell membrane
(of lymphocyte, glycoproteins of, as receptors for mitogens)
IT Glycoproteins
RL: BIOL (Biological study)
(of lymphocytes, as mitogen receptors rl)
IT Mitogens
(receptors for, of lymphocytes, characterization of)
IT Phytohemagglutinins
RL: BIOL (Biological study)
(receptors for, of lymphocytes, characterization of)
IT Lymphocyte
(rec

L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2000 ACS
AN 1980:405826 CAPLUS
DN 93:5826
TI Structural studies of murine lymphocyte surface IgD
AU Goding, James W.
CS Sch. Med., Stanford Univ., Stanford, CA, 94305, USA
SO J. Immunol. (1980), 124(5), 2082-8
CODEN: JOIMA3; ISSN: 0022-1767
DT Journal
LA English
CC 15-2 (Immunochemistry)
AB Lymphocyte surface IgD was labeled with 125I by the lactoperoxidase technique and subjected to cleavage with trypsin or staphylococcal V8 protease. Tryptic cleavage resulted in Fab monomers consisting of one light chain disulfide bonded to an Fd fragment of mol. **wt.** **30,000** and an Fc fragment of mol. **wt.** 60,000, unreduced. Upon redn., the tryptic Fc consisted of one labeled fragment of 16,000 **daltons** when digested to completion. Before completion of digestion, intermediates of 35,000 and **20,** **000 daltons** were obsd. Thus, in addn. to cleavage at the hinge, trypsin causes addnl. cleavages in the Fc, within disulfide loops. Cleavage with staphylococcal V8 protease resulted in an Fc fragment that consisted of disulfide-bonded **20,000** -dalton subunits (sFc) and Fab' fragments made up of one Fd' fragment (40,000 **daltons**) disulfide bonded to one light chain. The sFc fragment exhibited a marked anodal shift in electrophoretic mobility in the presence of Na deoxy cholate, and a marked cathodal shift in the presence of cetyl tri-Me ammonium bromide. The Fab' fragment showed no such shift. These results indicate that (a) the only inter-heavy chain disulfide bonds are situated within the last two domains, and (b) the C-terminal **20,000 daltons** of IgD contain a region that is capable of binding detergent and thus of interacting with membrane lipid.
ST lymphocyte IgD structure
IT Lymphocyte
(IgD of surface of, structure of)
IT **Immunoglobulins**
RL: BIOL (Biological study)
(D, of lymphocyte surface, structure of)